Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A process for production of a compound oxide, comprising

contacting an organic phase having dissolved therein an organic compound which produces a hydroxide of a first element when hydrolyzed, with an aqueous phase containing a second element as an ion, to produce a product of the hydroxide of the first element by hydrolysis reaction of the organic compound at their interface between said organic and aqueous phases while incorporating the second element in the product, and

firing the resulting product to produce a compound oxide of the first element and second element.

2. (Original) A process for production of a compound oxide according to claim 1, wherein said aqueous phase further contains a third or additional elements as ions, said product further contains a third or additional elements, and the obtained compound oxide is a compound oxide of the first, second and third or additional elements.

3. (Original) A process for production of a compound oxide according to claim 1, wherein a water-in-oil type emulsion system or microemulsion system is used.

4. (Original) A process for production of a compound oxide according to claim 3, wherein the size of the aqueous phase of the water-in-oil type microemulsion is in the range of 2-40 nm.

5. (Original) A process for production of a compound oxide according to claim 1, wherein said organic compound is a metal alkoxide or an acetonate-metal complex, and the second and/or third or additional element ions are ions of inorganic acid metal salts.

6. (Original) A process for production of a compound oxide of zirconium and cerium, comprising

preparing a microemulsion comprising an organic phase dispersed in an aqueous phase, said organic phase having dissolved therein a zirconium alkoxide, said aqueous phase containing a cerium salt;

conducting said organic phase with said aqueous phase to produce a product of zirconium hydroxide by hydrolysis reaction of the zirconium alkoxide at their interface between said organic and aqueous phases while incorporating the zirconium element in the product, and

firing the resulting product to produce a compound oxide of zirconium and cerium.

7. (Currently Amended) A process for production of an exhaust gas purifying catalyst carrier, characterized by producing the exhaust gas purification catalyst carrier by a production process according to claim 1 ~~any one of claims 1 to 6~~.

8. (New) A process for production of an exhaust gas purifying catalyst carrier, characterized by producing the exhaust gas purification catalyst carrier by a production process according to claim 2.

9. (New) A process for production of an exhaust gas purifying catalyst carrier, characterized by producing the exhaust gas purification catalyst carrier by a production process according to claim 3.

10. (New) A process for production of an exhaust gas purifying catalyst carrier, characterized by producing the exhaust gas purification catalyst carrier by a production process according to claim 4.

11. (New) A process for production of an exhaust gas purifying catalyst carrier, characterized by producing the exhaust gas purification catalyst carrier by a production process according to claim 5.

12. (New) A process for production of an exhaust gas purifying catalyst carrier, characterized by producing the exhaust gas purification catalyst carrier by a production process according to claim 6.